

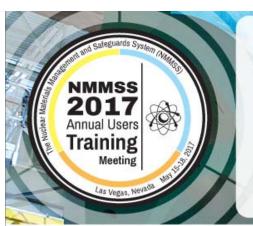


## **Objectives**

Discuss high level overview of *nuances* that impact format and content of nuclear material accountancy reporting to NMMSS

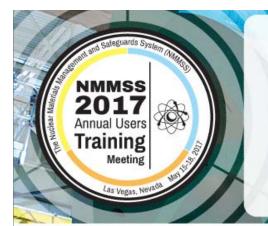
Key takeaways on navigating reporting to NMMSS





# Current Profile of Domestic Facilities Reporting to NMMSS

Facility Types	#	IAEA Selected				
Mines and mills	6					
Conversion	1					
Enrichment	3	1				
Fuel fabrication	5	3				
Research/test reactors	31					
Power reactors	104					
Other facilities	201					
NNSA/DOE	49	1				
Total	400	5				



#### Where to look for nuances....

#### Domestic regulations and requirements

- Typically structured per facility lifecycle
- Provide overall framework and reporting criteria
- DOE requires its facilities to track and report 17 types of materials to NMMSS
- NRC requires its facilities to track and report 8 types of materials to NMMSS

#### International agreements and treaties

- Typically organized per class of facilities or operations
- Focus on use of material

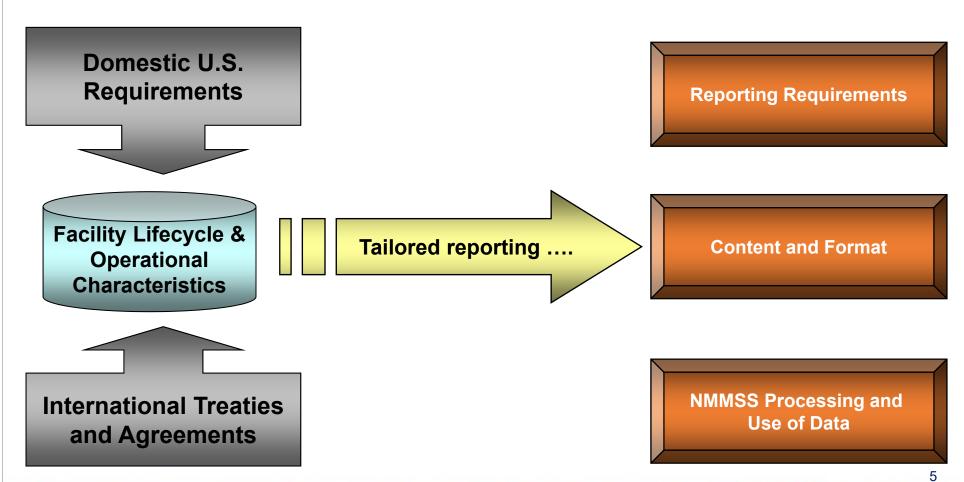
#### Facility-specific operation

- Material balance areas (MBAs)
- Customers
- Suppliers
- Material use and processing



Roadmap to NMMSS Reporting

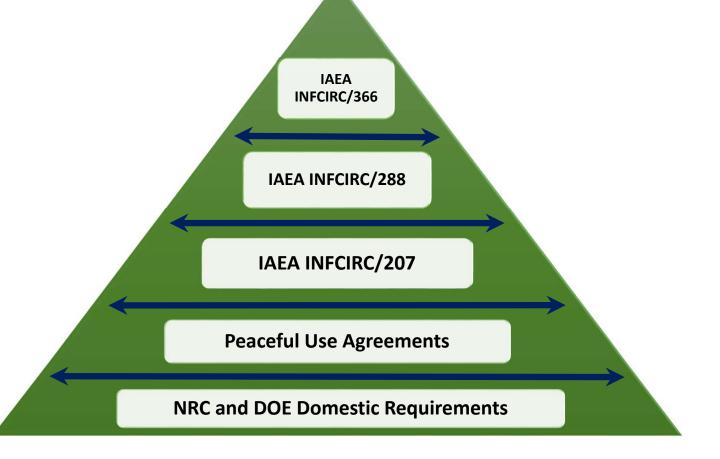
## Nuances do result in unique reporting





## There is a Multiplicity of Rules and Requirements

There are nuances within each set of rules and requirements...





#### Nuances within requirements...

Examples

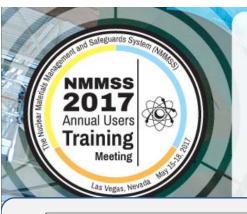
- If your facility ships material to, or receives material from, the U.S. Caribbean territories
  - Your facility does not report the transaction to NMMSS
  - The nine entities based in the U.S. Caribbean territories must report both sides of transactions to NMMSS
- If you are an IAEA selected facility
  - Your facility-specific Transitional Facility Attachment (TFA) specifies additional data you must report to NMMSS
    - Key Measurement Point
    - Measurement Basis
    - Composition/facility code



#### Nuances within requirements...

Examples

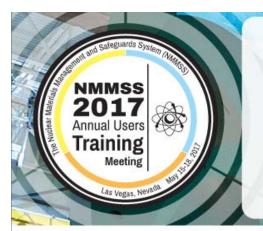
- If your facility possesses "obligated" nuclear material
  - The terms of each Agreement for Nuclear Cooperation governs what you can and cannot do with the material
  - Additional tracking and reporting requirements are mandated for the "obligated" nuclear material
    - Country of Obligation
    - Obligated element weight and obligated isotope weight
- Possessing DOE-owned nuclear material (owner code G) adds additional tracking and reporting requirements
  - Project number
  - Additional materials tracked and reported to NMMSS
  - September 30<sup>th</sup> inventory report
  - If ownership changes, you will need to add information in the For Account (box 12a) and/or
     To Account (box 13a) areas on the Form 741



### The only constant is the "how to" part

(Everyone uses the same mechanisms - harmonized reporting)

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#### **Takeaways**

- Reporting to NMMSS is relatively easy -- Complexities arise as a function of
  - Volume of shipments and receipts
  - Diversity of material and its isotopic composition
  - Processing of the material/blending
  - Quantities
  - Nature of customers and suppliers
  - Regulatory and treaty-specific requirements
- Recognizing facility-specific circumstances is key to navigating the reporting process
  - Peaceful Use Agreements vary
    - · Some Agreements only involve obligated nuclear material
    - Some Agreements also involve obligated equipment
  - Transitional Facility Attachments (TFAs) vary
    - Reporting units, material balance areas (MBAs), etc.
- Clarify potential ambiguities with NRC or DOE
  - Applicability
  - Context
- Call NMMSS We are here to help!